The Deep Planting of Longstem Native Shrubs: An effective and inexpensive planting method for disturbed Southwestern riparian ecosystems <sup>1</sup>

Due to the loss of natural hydrologic conditions on many rivers in the Southwest, it may be necessary to plant riparian vegetation on the banks of floodplains to reduce soil erosion, enhance wildlife habitat, create buffers, and improve recreational opportunities. In lower elevations in the Southwest where annual precipitation is less than 15 inches, traditional planting methods require frequent irrigation for species such as cottonwoods (*Populus* species), willows (*Salix* species), stretchberry (*Forestiera pubescens*), indigo bush (*Amorpha fruticosa*), and false willow (*Baccharis salicina*). This is very labor intensive and is often cost prohibited. In response, the New Mexico Natural Resources Service has developed a deep-planting method (for shrubs and trees) that involves placing the lower portion of the rootball of a transplant in contact with the capillary fringe of the water table in the fall or winter when the water table is low and evapotranspiration demands of the plants are reduced. This often requires the root crown to be buried as deep as 4 to 7 feet. More than 7,000 longstems of common riparian species have been planted during the past eight years in riparian areas of New Mexico and Colorado without supplemental irrigation. Survival rates have ranged from 70 – 93%.

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